In the Specification

Please replace the paragraph beginning on page 9, line 16 with the following amended paragraph:

This process is only required when the present statement is the first statement. After going through the S223 step, the present statement is determined whether there exists an if conditional statement (S224). If the presently inputted statement is not the first statement in S222 step, the step progresses straight to S224 without going through the 223 step. If the present statement is an if-statement in the step 224, then the conditional equation C1 of the conditional statement is substituted (S225) by a conditional statement for (Cstr[c_con_bit].eq.1) $\wedge$ (($\neg$C1) $\vee$ (C1)). The above substituted conditional statement determines the branching of the present conditional statement using the Cstr value corresponding to the present conditional equation while maintaining the circular conditional equation semantic. Then, the presently inputted statement is determined whether or not it is the last statement (S226), if the presently inputted statement is not the last statement, then the identical process is continued until the last statement is received. Afterwards, the arbitrary parallel loop is transformed into a full race covering loop.

Please replace the paragraph beginning on page 10, line 15 with the following amended paragraph:

The race detection function instrumentation step as described in FIG. 6, when each of the statements of the parallel loop are inputted (S232) (S231) the presently inputted statement is determined whether it is the beginning and ending statement of the parallel loop (S232).

Please replace the paragraph beginning on page 10, line 19 with the following amended paragraph:

After the above determination, if the presently inputted statement is the beginning and ending statement of the parallel loop, then each of the label creation statements and ending statements which function on the iteration less than two times of the front and end execution paths are instrumented and inserted (S233).